

SECTION 01 00 00
GENERAL REQUIREMENTS

1.0 SAFETY REQUIREMENTS

Refer to section 01 35 26, SAFETY REQUIREMENTS for safety and infection control requirements.

1.1 GENERAL INTENTION

- A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor and materials and perform work for the Relocate Dementia Unit project located at the Martinsburg, VAMC as required by drawings and specifications.
- B. Visits to the site by Bidders may be made only by appointment with the Contracting Officer.
- C. Offices of the C.C. Hodgson Architectural Group, as Architect/Engineers, will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or her duly authorized representative.
- D. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.
- E. Prior to commencing work, general contractor shall provide proof that a OSHA certified "competent person" (CP) (29 CFR 1926.20(b)(2)) will maintain a presence at the work site whenever the general or subcontractors are present.
- F. Training:
 - 1. All employees of general contractor or subcontractors shall have the 10-hour and all supervisors, foremen and superintendents of the general contractor or subcontractors shall have the 30-hour OSHA certified Construction Safety course and /or other relevant

competency training, as determined by VA CP with input from the ICRA team.

2. Submit training records of all such employees for approval before the start of work.

G. Commissioning:

Contractor is to provide information in the Bid Statement regarding the inclusion of commissioning.

1.2 STATEMENT OF BID ITEM(S)

A. ITEM No. 1 (Base Bid):

Furnish all labor, tools, materials, equipment, and supervision to construct a new 16,660 SF Dementia household building and new 4,797 SF Connecting Link. All work will be located at the VA Medical Center, 510 Butler Avenue, Martinsburg, WV 25405 and will be performed in accordance with drawings and specifications. Work includes but is not limited to, asbestos abatement, general construction, alterations, demolition, masonry, insulation, drywall, metal stud walls, windows, doors, flooring, painting, telecommunications, utility systems, plumbing, mechanical, electrical, roofing and landscaping work.

Total Calendar Days for Item No. 1 (Base Bid): 625

B. Bid Item # 2 (Bid Alternate #1):

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment and supervision for:

1. Loading Dock
2. Asphalt Paving and Asphalt Repairs at the Loading Dock
3. Toilet and Bath Accessories
4. Medication Cabinets
5. Kitchen Equipment

6. Signage and Lockers
7. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item No. 1 (Base Bid #1): 600

C. Bid Item # 3 (Bid Alternate #2):

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment and supervision for:

1. Healing Garden
2. Landscape Edging
3. Temporary Construction Access Road
4. Concrete Sidewalks
5. Concrete Pavers
6. Tube Station
7. Loading Dock
8. Asphalt Paving and Asphalt Repairs at the Loading Dock
9. Toilet and Bath Accessories
10. Medication Cabinets
11. Kitchen Equipment
12. Signage and Lockers
13. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item No. 3 (Bid Alternate #2): 575

D. Bid Item # 4 (Bid Alternate #3):

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment and supervision for:

1. Dual Connecting Corridor and install Single Width Connecting Corridor in its place
2. Healing Garden

3. Landscape Edging
4. Temporary Construction Access Road
5. Concrete Sidewalks
6. Concrete Pavers
7. Tube Station
8. Loading Dock
9. Asphalt Paving and Asphalt Repairs at the Loading Dock
10. Toilet and Bath Accessories
11. Medication Cabinets
12. Kitchen Equipment
13. Signage and Lockers
14. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item No. 4 (Bid Alternate #3): 550

E. Bid Item # 5 (Bid Alternate #4):

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment and supervision for:

1. Dual Connecting Corridor, Single Width Connecting Corridor and install Low Voltage Power Duct Bank in its place
2. Healing Garden
3. Landscape Edging
4. Temporary Construction Access Road
5. Concrete Sidewalks
6. Concrete Pavers
7. Tube Station
8. Loading Dock
9. Asphalt Paving and Asphalt Repairs at the Loading Dock
10. Toilet and Bath Accessories
11. Medication Cabinets
12. Kitchen Equipment

13. Signage and Lockers
14. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item No. 5 (Bid Alternate #4): 525

F. Bid Item #6 (Bid Alternate #5)

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment, and supervision for:

1. Revise generator to 175KW. Revise emergency distribution panelboard "EDP" to 400A main bus and 350A main circuit breaker. Revise life safety ATS "ATS-EM-LS" to 100A. Revise critical system ATS "ATS-EM-CS" to 150A. Revise panel 1EH-C1 to 225A main bus and 150A main circuit breaker.
2. Dual Connecting Corridor, Single Width Connecting Corridor and install Low Voltage Power Duct Bank in its place
3. Healing Garden
4. Landscape Edging
5. Temporary Construction Access Road
6. Concrete Sidewalks
7. Concrete Pavers
8. Tube Station
9. Loading Dock
10. Asphalt Paving and Asphalt Repairs at the Loading Dock
11. Toilet and Bath Accessories
12. Medication Cabinets
13. Kitchen Equipment
14. Signage and Lockers
15. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item No. 6 (Bid Alternate #5): 525

G. Bid Item #7 (Bid Alternate #6)

Furnish all labor, tools, materials, equipment, and supervision in Item #1, but delete labor, tools, materials, equipment, and supervision for:

1. Eliminate Roof Edge fall protection
2. Revise generator to 175KW. Revise emergency distribution panelboard "EDP" to 400A main bus and 350A main circuit breaker. Revise life safety ATS "ATS-EM-LS" to 100A. Revise critical system ATS "ATS-EM-CS" to 150A. Revise panel 1EH-C1 to 225A main bus and 150A main circuit breaker.
3. Dual Connecting Corridor, Single Width Connecting Corridor and install Low Voltage Power Duct Bank in its place
4. Healing Garden
5. Landscape Edging
6. Temporary Construction Access Road
7. Concrete Sidewalks
8. Concrete Pavers
9. Tube Station
10. Loading Dock
11. Asphalt Paving and Asphalt Repairs at the Loading Dock
12. Toilet and Bath Accessories
13. Medication Cabinets
14. Kitchen Equipment
15. Signage and Lockers
16. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item #7 (Bid Alternate #6): 525

H. Bid Item #8 (Bid Alternate #7)

Furnish all labor, tools, materials, equipment, and supervision in Item #1,

but delete labor, tools, materials, equipment, and supervision for:

1. Eliminate pitched entry roofs at Household #1 in lieu of typical 4'H raised parapet

2. Eliminate Roof Edge fall protection
3. Revise generator to 175KW. Revise emergency distribution panelboard "EDP" to 400A main bus and 350A main circuit breaker. Revise life safety ATS "ATS-EM-LS" to 100A. Revise critical system ATS "ATS-EM-CS" to 150A. Revise panel 1EH-C1 to 225A main bus and 150A main circuit breaker.
4. Dual Connecting Corridor, Single Width Connecting Corridor and install Low Voltage Power Duct Bank in its place
5. Healing Garden
6. Landscape Edging
7. Temporary Construction Access Road
8. Concrete Sidewalks
9. Concrete Pavers
10. Tube Station
11. Loading Dock
12. Asphalt Paving and Asphalt Repairs at the Loading Dock
13. Toilet and Bath Accessories
14. Medication Cabinets
15. Kitchen Equipment
16. Signage and Lockers
17. Delete Masonry Veneer and install Exterior Insulation Finishing System

Total Calendar Days for Item #8 (Bid Alternate #7): 525

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, specifications and drawings will be made available electronically.
- B. Contractor's Use of A/E's CAD Files: The Contractor will not be permitted to use the A/E's CAD files.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

A. Security Plan:

1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project.
2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

1. General Contractor's employees shall not enter the project site without appropriate badge. They may also be subject to inspection of their personal effects when entering or leaving the project site.
2. No photography of VA premises is allowed without written permission of the Contracting Officer.
3. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.
4. Contractors must obtain ID badges in accordance with Medical Center Memorandum (MCM) 05-04 "Personnel Suitability and Security Procedures. They may also be subject to inspection of their personal effects when entering or leaving the project site.

Step 1: (Upon notice of award)

Contractor will complete Contract Security Services Request (Form #1), listing all employees that will be performing work under the contract. Contract Security Verification Request Supplemental (Form #1b) may be filled out and attached if Form #1 does not provide enough space. Once completed, this form shall be submitted to the VHA Service Center (VSC) Personnel Security Office via password protected or encrypted email to VSCSecurity@va.gov or faxed to (216)447-8020.

❖ NOTE: In this form, line F will either be "construction" or the Scope of Work may be used, and line G will be low 99.9% of

the time unless the contractor will have access to sensitive information.

Step 2: (Upon notice of award, same time as Step 1)

Within five business days of Contractor receiving Notice of Award, each contract employee listed on Form #1 must take the Contractor/Employee Fingerprinting request (Form #2) and two forms of ID to their nearest VA facility to have their fingerprints submitted and the bottom portion of Form #2 completed by the fingerprinting official. Fingerprint appointments should be made through the COR or the local VA facility. Completed SAC forms shall be faxed or mailed directly to the VSC Personnel Security Office the same day the contractor employee is fingerprinted.

VHA Service Center (VSC)
6100 Oak Tree Blvd #500
Independence, OH 44131
Fax: (216) 447-8025
VSCSecurity@va.gov

Contractor shall inform the COR/CO when fingerprinting has been completed for each contract employee.

Step 3: (As soon as possible)

Each individual working on the contract or the contractor POC shall complete the VHA Service Center PIV Sponsorship (Form #3) for each employee, in its entirety, and return to VSC Security Office as soon as possible, either via fax, encrypted email or password protected documents. Upon receipt of this form and final results of fingerprinting confirmation, the VHA Security Service Center will send an email notification to the Contractor's POC and the CO authorizing contract employees to proceed with obtaining their required non-PIV security badge. Upon receipt of this confirmation, notify COR so they may schedule an appointment for PIV badging.

Only the individual whose name appears on the badge can pick up that badge from the badging office.

5. For working outside the "regular hours" as defined in the contract, The General Contractor shall give 3 days notice to the Contracting Officer so that security arrangements can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
6. Contractor is solely responsible for keeping the job site secure at all times, even during working hours. The job site shall be secured in such a manner to prohibit patients, staff and unauthorized personnel from entering the work site.
7. No photography of VA premises is allowed without written permission of the Contracting Officer.
8. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

C. Guards: (Not Used)

D. Key Control:

1. The General Contractor shall provide duplicate keys and lock combinations to the COR for the purpose of security inspections of every area of project including tool boxes and parked machines and take any emergency action.
2. The General Contractor shall turn over all permanent lock cylinders to the VA locksmith for permanent installation. See Section 08 71 00, DOOR HARDWARE and coordinate.

E. Document Control:

1. Before starting any work, the General Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The General Contractor is responsible for safekeeping of all drawings, project manual and other project information. This information shall be shared only with those with a specific need to accomplish the project.
3. Certain documents, sketches, videos or photographs and drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified". Secure such information in separate

containers and limit the access to only those who will need it for the project. Return the information to the Contracting Officer upon request.

4. These security documents shall not be removed or transmitted from the project site without the written approval of Contracting Officer.
5. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
6. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".
7. All electronic information shall be stored in specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
 - a. Security, access and maintenance of all project drawings, both scanned and electronic shall be performed and tracked through the EDMS system.
 - b. "Sensitive information" including drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed.

F. Motor Vehicle Restrictions

1. Vehicle authorization request shall be required for any vehicle entering the site and such request shall be submitted 24 hours before the date and time of access. Access shall be restricted to picking up and dropping off materials and supplies.
2. Separate permits shall be issued for General Contractor and its employees for parking in designated areas only.

1.5 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials

furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

- C. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(FAR 52.236-10)

- D. Working space and space available for storing materials shall be as determined by the COTR.
- E. Workers are subject to rules of Medical Center applicable to their conduct.
- F. Execute work so as to interfere as little as possible with normal functioning of Medical Center as a whole, including operations of utility services, fire protection systems and any existing equipment, and with work being done by others.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities that can be stored within designated areas. Provide unobstructed access to Medical Center areas required to remain in operation.

3. Where access by Medical Center personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.

- G. To ensure execution of work, Contractor shall furnish the COTR with a schedule of approximate dates on which the Contractor intends to accomplish work in each specific area of site, building or portion thereof.
- H. Contractor shall take all measures and provide all material necessary for protecting existing equipment and property in affected areas of construction against dust and debris, so that equipment and affected areas to be used in the Medical Centers operations will not be hindered. Contractor shall permit access to Department of Veterans Affairs personnel and patients through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Department of Veterans Affairs so that Medical Center operations will continue during the construction period.
- I. Contractor shall furnish the COTR with a schedule of approximate dates on which the Contractor intends to accomplish work in each specific area of site, building or portion thereof. In addition, Contractor shall notify the COTR two weeks in advance of the proposed date of starting work in each specific area of site, building or portion thereof.

Contractor shall take all measures and provide all material necessary for protecting existing equipment and property in affected areas of construction against dust and debris, so that equipment and affected areas to be used in the Medical Centers operations will not be hindered. Contractor shall permit access to Department of Veterans Affairs personnel and patients through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Department of Veterans Affairs so that Medical Center operations will continue during the construction period.

J. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum height, around the construction area indicated on the drawings. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. Remove the fence when directed by COTR.

When a portion of the building is turned over to Contractor, Contractor shall accept entire responsibility therefore.

1. Contractor shall maintain a minimum temperature of 4 degrees C (40 degrees F) at all times, except as otherwise specified.
2. Contractor shall maintain in operating condition existing fire protection and alarm equipment. In connection with fire alarm equipment, Contractor shall make arrangements for pre-inspection of site with Fire Department or Company (Department of Veterans Affairs or municipal) whichever will be required to respond to an alarm from Contractor's employee or watchman.

K. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COTR.

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of COTR. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work on any energized circuits or equipment shall not commence without the Medical Center Director's prior knowledge and written approval. Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS

INSTALLATIONS and 28 05 11, REQUIREMENTS FOR ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.

2. Contractor shall submit a request to interrupt any such services to COTR, in writing, 48 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
 3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Medical Center. Interruption time approved by Medical Center may occur at other than Contractor's normal working hours.
 4. Major interruptions of any system must be requested, in writing, at least 15 calendar days prior to the desired time and shall be performed as directed by the COTR.
 5. In case of a contract construction emergency, service will be interrupted on approval of COTR. Such approval will be confirmed in writing as soon as practical.
- L. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned shall be entirely removed and capped or plugged at the nearest main. Openings left by removal of such items shall be filled immediately. They shall be filled in a manner that maintains fire ratings, smoke separations, and other required separations intact. Openings in finished areas shall be patched to match material, finish and color of adjacent areas.
- M. To minimize interference of construction activities with flow of Medical Center traffic, comply with the following:
1. Keep roads, walks and entrances to grounds, to parking and to occupied areas of buildings clear of construction materials, debris and standing construction equipment and vehicles.
 2. Method and scheduling of required cutting, altering and removal of existing roads; walks and entrances must be approved by the COTR.

- N. Coordinate the work for this contract with other construction operations as directed by COTR. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.
- O. Contractor shall hold weekly construction meetings on-site at a location to be determined by the COTR. Contractor shall provide computer generated minutes of all meetings and shall distribute minutes to all participants within two (2) working days after said meeting. Electronic submission of minutes is required in addition to one hard copy to the COTR.
- P. Daily logs shall be electronically submitted on a daily basis to the COTR for all construction personnel, all materials brought on-site that day, work performed on that day, the weather for the day including temperature, precipitation (form and amounts) sunny, cloudy, windy or calm as well as any contacts made that day. Sample log may be provided, if requested, in electronic format to the contractor for his distribution and use.

1.6 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the COTR of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by both to the Contracting Officer. This report shall list by rooms and spaces:
 - 1. Existing condition and types of resilient flooring, doors, windows, walls and other surfaces not required to be altered throughout affected areas of building.
 - 2. Existence and conditions of items required by drawings to be either reused or relocated, or both.
 - 3. Shall note any discrepancies between drawings and existing conditions at site.
 - 4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and COTR.

B. Any items required by drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of COTR to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by Contractor with new items in accordance with specifications which will be furnished by Government. Provided the contract work is changed by reason of this subparagraph B, the contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236-2) and "CHANGES" (FAR 52.243-4 and VAAR 852.236-88).

C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and COTR together shall make a thorough re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing as compared with conditions of same as noted in first condition survey report:

1. Re-survey report shall also list any damage caused by Contractor despite protection measures; and, will form basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workers in executing work of this contract.

D. Protection: Provide the following protective measures:

1. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.

1.7 DISPOSAL AND RETENTION

A. Materials and equipment accruing from work removed and from demolition shall be disposed of as follows:

1. Reserved items which are to remain property of the Government are identified by attached tags or noted on drawings or in specifications as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where directed by COTR.
2. Items not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.
4. PCB Transformers and Capacitors: The Contractor shall be responsible for disposal of the Polychlorinated Biphenyl (PCB) transformers and capacitors. The transformers and capacitors shall be taken out of service and handled in accordance with the procedures of the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) as outlined in Code of Federal Regulation (CFR), Titled 40 and 49 respectively. The EPA's Toxic Substance Control Act (TSCA) Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7 also apply. Upon removal of PCB transformers and capacitors for disposal, the "originator" copy of the Uniform Hazardous Waste Manifest (EPA Form 8700-22), along with the Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) shall be returned to the COTR who will annotate the contract file and transmit the Manifest to the Medical Center's Chief.
 - a. Copies of the following listed CFR titles may be obtained from the Government Printing Office:

40 CFR 261.....Identification and Listing of Hazardous Waste

40 CFR 262.....Standards Applicable to Generators of Hazardous Waste

40 CFR 263.....Standards Applicable to Transporters of
Hazardous Waste

40 CFR 761.....PCB Manufacturing, Processing, Distribution in
Commerce, and use Prohibitions

49 CFR 172.....Hazardous Material tables and Hazardous
Material Communications Regulations

49 CFR 173.....Shippers - General Requirements for Shipments
and Packaging

49 CFR 173.....Subpart A General

49 CFR 173.....Subpart B Preparation of Hazardous Material for
Transportation

49 CFR 173.....Subpart J Other Regulated Material; Definitions
and Preparation

TSCA.....Compliance Program Policy Nos. 6-PCB-6 and
6-PCB-7

1.8 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workers, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.
- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party,

resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

- B. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.

1.9 RESTORATION

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the COTR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the COTR before it is disturbed. Materials and workmanship used in restoring work shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.
- C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workers to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are indicated on drawings and which are not scheduled for discontinuance or abandonment.

- D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) and "DIFFERING SITE CONDITIONS" (FAR 52.236-2).

1.10 PHYSICAL DATA

- A. Data and information furnished or referred to below is for the Contractor's information. Neither the Government nor the Architect-Engineer shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

1. Boring samples and geotechnical information and investigation provided by Hardin-Kight Associates, Inc., Glen Burnie, MD.

(FAR 52.236-4)

- B. Government does not guarantee that other materials will not be encountered nor that proportions, conditions or character of several materials will not vary from those indicated by explorations. Bidders are expected to examine site of work and logs of borings; and, after investigation, decide for themselves character of materials and make their bids accordingly. Upon proper application to Department of Veterans Affairs, bidders will be permitted to make subsurface explorations of their own at site.

1.11 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall perform services specified herein and in other specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this contract.

1.12 LAYOUT OF WORK

- A. The Contractor shall lay out the work and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at Contractor's own expense, all stakes, templates, platforms,

equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(FAR 52.236-17)

- B. Establish and plainly mark lines and grades that are reasonably necessary to properly assure that location, orientation, and elevations established for such structure and in accordance with lines and elevations shown on contract drawings.
- C. Following completion of general mass excavation and before any other permanent work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of work. Survey shall include, but not be limited to, location of lines and grades of footings, exterior walls, center lines of columns in both directions, major utilities and elevations of floor slabs:
 - 1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the COR before any work (such as footings, floor slabs, columns, walls, utilities and other major controlling features) is placed.
- D. During progress of work, and particularly as work progresses from floor to floor, Contractor shall have line grades and plumbness of all major form work checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the COR before any major items of concrete work are placed. In addition, Contractor shall also furnish to the COR certificates from a registered land surveyor or registered

civil engineer that the following work is complete in every respect as required by contract drawings.

1. Lines of each building and/or addition.
 2. Elevations of bottoms of footings and tops of floors of each building and/or addition.
 3. Lines and elevations of sewers and of all outside distribution systems.
- E. Whenever changes from contract drawings are made in line or grading requiring certificates, record such changes on a reproducible drawing bearing the registered land surveyor or registered civil engineer seal, and forward these drawings upon completion of work to COR.
- F. The Contractor shall perform the surveying and layout work of this and other articles and specifications in accordance with the provisions of Article "Professional Surveying Services".

1.13 AS-BUILT DRAWINGS

- A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, to include all contract changes, modifications and clarifications.
- B. All variations shall be shown in the same general detail as used in the contract drawings. To insure compliance, as-built drawings shall be made available for the COTR's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the COTR within 15 calendar days after each completed phase and after the acceptance of the project by the COTR.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.14 USE OF ROADWAYS

For hauling, use only established public roads and roads on Medical Center property and, when authorized by the COTR, such temporary roads which are necessary in the performance of contract work. Temporary

roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

1.15 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light and power will be permitted subject to compliance with the following provisions:
1. Permission to use each unit or system must be given by COTR. If the equipment is not installed and maintained in accordance with the following provisions, the COTR will withdraw permission for use of the equipment.
 2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e. transformers, relays, circuit breakers, fuses, conductors, motor controllers and their overload elements shall be properly sized, coordinated and adjusted. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
 3. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
 4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
 5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
 6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to

- prevent corrosion internally and externally during use; and cleaned, maintained and inspected prior to acceptance by the Government.
- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal, shall be replaced with identical replacements, at no additional cost to the Government.
 - C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

1.16 TEMPORARY TOILETS

Provide where directed, (for use of all Contractor's workers) ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by COTR, provide suitable dry closets where directed. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean.

1.17 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract at no cost to the Contractor. The Contractor shall carefully conserve any utilities furnished without charge.
- B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.
- C. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials:

1. Obtain heat by connecting to Medical Center heating distribution system.

D. Electricity (for Construction and Testing):

1. Obtain electricity by connecting to the Medical Center electrical distribution system at location determined by the COTR. Electricity is available at no cost to the Contractor.

E. Water (for Construction and Testing): Furnish temporary water service.

1. Obtain water by connecting to the Medical Center water distribution system. Provide reduced pressure backflow preventer at each connection. Water is available at no cost to the Contractor.
2. Maintain connections, pipe, fittings and fixtures and conserve water-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at COTR's discretion) of use of water from Medical Center's system.

1.18 NEW TELEPHONE EQUIPMENT

The contractor shall coordinate with the work of installation of telephone equipment by others. This work shall be completed before the building is turned over to VA.

1.19 TESTS

- A. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.
- B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- C. Mechanical and electrical systems shall be balanced, controlled and coordinated. A system is defined as the entire complex which must be coordinated to work together during normal operation to produce results

for which the system is designed. For example, air conditioning supply air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air, steam, chilled water, refrigerant, hot water, controls and electricity, etc. Another example of a complex which involves several components of different disciplines is a boiler installation. Efficient and acceptable boiler operation depends upon the coordination and proper operation of fuel, combustion air, controls, steam, feedwater, condensate and other related components.

- D. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.
- E. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

1.20 INSTRUCTIONS

- A. Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the specifications and as hereinafter specified.
- B. Manuals: Maintenance and operating manuals (four copies each) for each separate piece of equipment shall be delivered to the COTR coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals

must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.

- C. Instructions: Contractor shall provide qualified, factory-trained manufacturers' representatives to give detailed instructions to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different items of equipment that are component parts of a complete system, shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter-related systems. All instruction periods shall be at such times as scheduled by the COTR and shall be considered concluded only when the COTR is satisfied in regard to complete and thorough coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the COTR, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.21 GOVERNMENT-FURNISHED PROPERTY

- A. The Government shall deliver to the Contractor, the Government-furnished property shown on the Schedule.
- B. Equipment furnished by Government to be installed by Contractor will be furnished to Contractor at the Medical Center.
- C. Storage space for equipment will be provided by the Government and the Contractor shall be prepared to unload and store such equipment therein upon its receipt at the Medical Center.
- D. Notify COTR in writing, 60 days in advance, of date on which Contractor will be prepared to receive equipment furnished by Government.

Arrangements will then be made by the Government for delivery of equipment.

1. Immediately upon delivery of equipment, Contractor shall arrange for a joint inspection thereof with a representative of the Government. At such time the Contractor shall acknowledge receipt of equipment described, make notations, and immediately furnish the Government representative with a written statement as to its condition or shortages.

2. Contractor thereafter is responsible for such equipment until such time as acceptance of contract work is made by the Government.

E. Equipment furnished by the Government will be delivered in a partially assembled (knock down) condition in accordance with existing standard commercial practices, complete with all fittings, fastenings, and appliances necessary for connections to respective services installed under contract. All fittings and appliances (i.e., couplings, ells, tees, nipples, piping, conduits, cables, and the like) necessary to make the connection between the Government furnished equipment item and the utility stub-up shall be furnished and installed by the contractor at no additional cost to the Government.

F. Completely assemble and install the Government furnished equipment in place ready for proper operation in accordance with specifications and drawings.

G. Furnish supervision of installation of equipment at construction site by qualified factory trained technicians regularly employed by the equipment manufacturer.

1.22 RELOCATED ITEMS

A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing items indicated by symbol "R" or otherwise shown to be relocated by the Contractor.

B. Perform relocation of such equipment or items at such times and in such a manner as directed by the COTR.

- C. Suitably cap existing service lines, such as steam, condensate return, water, drain, gas, and/or electrical, whenever such lines are disconnected from equipment to be relocated. Remove abandoned lines in finished areas and cap as specified herein before under paragraph "Abandoned Lines".
- D. Provide all mechanical and electrical service connections, fittings, fastenings and any other materials necessary for assembly and installation of relocated equipment; and leave such equipment in proper operating condition.
- E. All service lines such as noted above for relocated equipment shall be in place at point of relocation ready for use before any existing equipment is disconnected. Make relocated existing equipment ready for operation or use immediately after reinstallation.

1.23 CONSTRUCTION SIGN

- A. Provide a Construction Sign where directed by the Resident Engineer. All wood members shall be of framing lumber. Cover sign frame with 0.7 mm (24 gage) galvanized sheet steel nailed securely around edges and on all bearings. Provide three 100 by 100 mm (4 inch by 4 inch) posts (or equivalent round posts) set 1200 mm (four feet) into ground. Set bottom of sign level at 900 mm (three feet) above ground and secure to posts with through bolts. Make posts full height of sign. Brace posts with 50 x 100 mm (two by four inch) material as directed.
- B. Paint all surfaces of sign and posts two coats of white gloss paint. Border and letters shall be of black gloss paint, except project title which shall be blue gloss paint.
- C. Maintain sign and remove it when directed by the Resident Engineer.
- D. Detail Drawing of construction sign showing required legend and other characteristics of sign is shown on the drawings.

1.24 SAFETY SIGN

- A. Provide a Safety Sign where directed by COTR. Face of sign shall be 19 mm (3/4 inch) thick exterior grade plywood. Provide two 100 mm by 100

mm (four by four inch) posts extending full height of sign and 900 mm (three feet) into ground. Set bottom of sign level at 1200 mm (four feet) above ground.

- B. Paint all surfaces of Safety Sign and posts with one prime coat and two coats of white gloss paint. Letters and design shall be painted with gloss paint of colors noted.
- C. Maintain sign and remove it when directed by COTR.
- D. Standard Detail Drawing Number SD10000-02 (Found on VA TIL) of safety sign showing required legend and other characteristics of sign is shown on the drawings.
- E. Post the number of accident free days on a daily basis.

1.25 PHOTOGRAPHIC DOCUMENTATION

- A. During the construction period through completion, provide comprehensive photographic documentation of construction process progressively and at selected milestones. High definition video documentation of selected dynamic events will be required. Documentation shall be inclusive of electronic indexing, navigation, hosting, storage and remote access, as applicable, throughout construction. The Contractor shall support, security of information and technological requirements related to the documentation. The commercial photographer or the subcontractor used for this work shall meet the following qualifications:
 - 1. Demonstrable minimum experience of five (5) years in operation providing documentation and advanced indexing/navigation systems including a representative portfolio of construction projects of similar type, size, duration and complexity as the Project.
 - 2. Proficiency in the execution of digital photography, videography and web camera systems' configuration, including use and knowledge of associated equipment.
 - 3. In-house programming division for customizable documentation solutions required.
 - 4. At least TEN (10) references.
 - 5. Demonstrable ability and current capacity for both data and personnel to service and conform to this specification on multiple

projects, simultaneously, in this area. Contractor must have a local office within 80 miles of the Project site and be able to respond to site visit requests with qualified personnel within FOUR (4) hours of notice

B. Documentation platform and delivery method:

1. Photographic Documentation:

- a. Documentation indexing and navigation system will utilize actual construction drawings (project plans) or equivalent as the basis for an interactive on-line interface.
- b. For all photographic documentation referenced herein, indexing and navigation must be organized by both time (date-stamped) and location throughout the Project.
- c. Access interface will include multiple active projects per user, if applicable.
- d. Access interface will provide recent documentation activity summaries per project. Direct access to project plans and shoots will be possible from summary display.
- e. Access interface will provide a map view that pinpoints the physical location of each project accessible by the user. Direct access to project plans and shoots will be possible from the map view.
- f. Documentation activity can be queried by date range via activity searches.
- g. Documentation will combine indexing and navigation system with inspection-grade high-resolution digital photography performed by Contractor, designed to capture actual conditions throughout construction and at critical milestones.
- h. Contractor documentation will be accessible on-line within 24 hours after each shoot, through the use of an Internet connection.
- i. Documentation will allow for multiple-user access, simultaneously, on-line.
- j. Access shall adhere to industry standards for information security and protection of data.
- k. Multi-tiered access levels shall be achievable through use of

individual passwords, if applicable. Users of a sufficient tier will be able to identify other authorized users on each project

- l. Online interface will provide a summary view of the documentation within a project by project plan and by shoot. Direct access to project plans and shoots will be possible from each project summary view.
- m. Online interface will allow users to upload Client's own digital photographic images to the documentation indexing and navigation system.
 - i. Users will be able to link images to the project floor plans for customized location-based indexing.
 - ii. The acting user will be able define permissions and access to uploaded images. Access, per image, can be set to either (1) the acting user only, (2) all project users or a (3) subset of project users.
- n. Online interface will allow users to upload files to the documentation indexing and navigation system. Supported file formats will include, at minimum, PDF, Microsoft Word documents, and Microsoft Excel spreadsheets, Microsoft PowerPoint presentations, JPEG, PNG, GIF, MPEG and Folders.
 - i. Users will be able to link files to the project floor plans for customized location-based indexing.
 - ii. The acting user will be able define permissions and access to uploaded files. Access, per file, can be set to either (1) the acting user only, (2) all project users or a (3) subset of project users.
- o. Online interface will provide a repository where users can upload and store digital photographic images and other files for the Project, separate from the construction drawings.
- p. Online interface will allow users to comment (privately or publically) on images, shoots and projects.
 - i. Through integrated reporting functionality, users can generate custom reports per image or on a collection of images ("image reports"), including their associated comments. Image reports are exportable in PDF format or as a standalone hyperlink.
 - ii. All image reports will identify the time, date and location of each image, and will include associated comments that can be archived indefinitely.
 - iii. The administrator user will be able to restrict commenting functions. Commenting permissions, per user, can be set to either (1) read/write, (2) read only or (3) no read/no write permissions.

- q. Online interface will allow users to create customizable tags that can be utilized with the integrated reporting functionality to generate issue-specific image reports.
 - i. These reports must be made available through PDF export and a standalone link.
 - ii. All image reports will identify the time, date and location of each image, and will include associated comments that can be archived indefinitely.
- r. Online interface will allow users to mark-up images using integrated annotation functionality.
- s. Online interface will allow users to sort specific sets of images into custom albums.
 - i. Users will be able to select one or more images to create new custom albums.
 - ii. Users will be able to add images to their existing custom albums.
 - iii. Custom albums can contain a combination of Contractor and Client images.
- t. Online interface will support batch actions by allowing users to multi-select images and other files for viewing, exporting and saving.
- u. Online interface will allow users to tag images as "Favorites". Users will be able to view all of their "Favorite" images from a centralized location.

2. Video documentation:

- a. Video documentation must be recorded in no less than 1920 x 1080p HD video format with 16:9 Aspect Ratio. Documentation will be delivered as a Permanent Record in the format(s) described in Part 1.31 SJ of this specification.
- b. Documentation will be integrated with the Permanent Record of the digital photographic documentation for the Project.
- c. All on-site training requirements will be videotaped.
- d. Three copies of each training event will be provided on DVD disks. The disks will be marked with the project number, project name, type of training, and date of training.

C. Photographic documentation elements:

- 1. Each digital image shall be taken with a professional grade camera with minimum size of 6 megapixels (MP) capable of producing 200x250mm (8 x 10 inch) prints with a minimum of 2272 x 1704 pixels and 400x500mm (16 x 20 inch) prints with a minimum 2592 x 1944 pixels.

2. Indexing and navigation system shall utilize actual AUTOCAD construction drawings, making such drawings interactive on an on-line interface. For all documentation referenced herein, indexing and navigation must be organized by both time (date-stamped) and location throughout the project.
3. Documentation shall combine indexing and navigation system with inspection-grade digital photography designed to capture actual conditions throughout construction and at critical milestones. Documentation shall be accessible on-line through use of an internet connection. Documentation shall allow for secure multiple-user access, simultaneously, on-line.
4. Before construction, the building pad, adjacent streets, roadways, parkways, driveways, curbs, sidewalks, landscaping, adjacent utilities and adjacent structures surrounding the building pad and site shall be documented. Overlapping photographic techniques shall be used to insure maximum coverage. Indexing and navigation accomplished through interactive architectural drawings. Integrated commenting and tagging will allow for indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan. If site work or pad preparation is extensive, this documentation may be required immediately before construction and at several pre-determined intervals before building work commences.
5. Construction progress for all trades shall be tracked at pre-determined intervals, but not less than once every thirty (30) calendar days ("Progressions"). Progression documentation shall track both the exterior and interior construction of the building. Exterior Progressions shall track 360 degrees around the site and each building. Interior Progressions shall track interior improvements beginning when stud work commences and continuing until Project completion. Indexing and navigation accomplished through interactive architectural drawings. Integrated commenting and tagging will allow for indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan.
6. As-built condition of pre-slab utilities and site utilities shall be documented prior to pouring slabs, placing concrete and/or backfilling. This process shall include all underground and in-slab utilities within the building(s) envelope(s) and utility runs in the immediate vicinity of the building(s) envelope(s). This may also include utilities enclosed in slab-on-deck in multi-story buildings. Overlapping photographic techniques shall be used to insure maximum coverage. Indexing and navigation accomplished through interactive site utility plans. Integrated commenting and tagging will allow for

indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan.

7. As-built conditions of mechanical, electrical, plumbing and all other systems shall be documented post-inspection and pre-insulation, sheet rock or dry wall installation or as near to this milestone as is reasonably possible. This process shall include all finished systems located in the walls and ceilings of all buildings at the Project. Overlapping photographic techniques shall be used to insure maximum coverage. Indexing and navigation accomplished through interactive architectural drawings. Integrated commenting and tagging will allow for indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan.
8. As-built conditions of exterior skin and elevations shall be documented with an increased concentration of digital photographs as directed by the COR in order to capture pre-determined focal points, such as waterproofing, window flashing, radiused steel work, architectural or Exterior Insulation and Finish Systems (EIFS) detailing. Overlapping photographic techniques shall be used to insure maximum coverage. Indexing and navigation accomplished through interactive elevations or elevation details. Integrated commenting and tagging will allow for indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan.
9. As-built finished conditions of the interior of each building including floors, ceilings and walls shall be documented at certificate of occupancy or equivalent, or just prior to occupancy, or both, as directed by the COR. Overlapping photographic techniques shall be used to insure maximum coverage. Indexing and navigation accomplished through interactive architectural drawings. Integrated commenting and tagging will allow for indication and isolation of issues on the interactive plan and for report generation including, per report, issue image, index number, date and depiction of issue location on the floor plan or site plan
10. Miscellaneous events that occur during any Contractor site visit, or events captured by the Department of Veterans Affairs independently, shall be dated, labeled and inserted into a Section in the navigation structure entitled "Slideshows," allowing this information to be stored in the same "place" as the formal scope.
11. Customizable project-specific digital photographic documentation of other details or milestones. Indexing and navigation accomplished through interactive architectural plans.

12. Four (4) Sets of Regular Interior Progressions that captures each major wall to begin at time of substantial framing, with the final progression occurring at the finished condition of the interior, or as directed by the COR.
13. Monthly (29 max) exterior progressions (360 degrees around the project) and slideshows (all elevations and building envelope). The slideshows allow for the inclusion of the Department of Veterans Affairs pictures, aerial photographs, and timely images which do not fit into any regular monthly photo path.
14. Weekly (21 Max) Site Progressions - Photographic documentation capturing the project at different stages of construction. These progressions shall capture underground utilities, excavation, grading, backfill, landscaping, and road construction throughout the duration of the project.
15. Regular (8 max) interior progressions of all walls of the entire project to begin at time of substantial framed or as directed by the COR through to completion.
16. Detailed Site Survey Exact-Built (pre-construction). The pre-construction site survey shall provide coverage of the site and its immediate surrounding area to carefully memorialize pre-existing conditions before the project begins.
17. Detailed Pre-Slab Exact-Built of all Slabs and Grade onle. This shall capture all project slab pours just prior to placing concrete or as directed by the COR.
18. Detailed Interior MEP exact-built overlapping photos of the entire building to include documentation of all mechanical, electrical and plumbing systems in every floor, wall and ceiling, to be conducted after rough-ins are complete, just prior to being concealed by concrete, flooring, insulation, drywall, ceilings, or as directed by COR.
19. Finished detailed Interior exact-built overlapping photos of all walls, ceilings, and floors to be scheduled by COR prior to occupancy. Includes all walls, ceilings and floors in their post-inspection, completed condition are documented in exceptional detail.
20. In event a greater or lesser number of images than specified above are required by the COR, adjustment in contract price will be made in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88).

D. CONTRACTOR SUPPORT; HOSTING; CLIENT ACCESS; CLIENT USAGE RIGHTS; AND
CONTRACTOR DELIVERABLES

1. Images shall be taken by a commercial photographer and must show distinctly, at as large a scale as possible, all parts of work embraced in the picture.
 2. Field personnel to undertake the documentation provided exclusively by the Contractor. Field personnel shall be OSHA certified, if applicable, per the Project-specific safety programs. Coordination with project teams will be accomplished through the COR for the Project. Contractor will also attend OAC or construction team meetings as necessary. Contractor's operations team will provide regular updates regarding the status of the documentation, including completed elements of the documentation, the availability of recent documentation on-line and anticipated future shoot dates.E. Contractor shall provide all on-line domain/web hosting, security measures, and redundant server back-up of the documentation.
- E. Contractor shall provide technical support related to using the system or service.
- F. Any software required for all indexing, navigation, hosting and remote access furnished by Contractor (excepting web browsers), including user license.
- G. Contractor furnishes technical support related to using the system or service, including site visits when required and/or requested.
- H. Contractor must be able to create off-line or stand-alone (on-site) version of documentation platform required by this specification, if applicable, for high security or sensitive facilities.
- J. Upon completion of the project, final copies of the documentation (the "Permanent Record") will be provided in a digital media format. On-line access terminates upon delivery of the Permanent Record or as agreed between Contractor and the VA. Intellectual property rights associated with the digital media prepared in direct service of the Project shall transfer, along with the media itself, to the VA. Permanent Record shall have Building Information Modeling (BIM) interface capabilities. On-line access terminates upon delivery of the Permanent Record. The VA may make separate arrangements with the photo documentation service to continue the online access to the project documents.
1. Photographic Documentation: The Permanent Record will be provided with the underlying housing software, indexing and navigation system, typically as a DVD. One multiple-user license for use of the underlying housing software, indexing and navigation is included for accessing the digital media.

1.26 FINAL ELEVATION DIGITAL IMAGES (NOT USED)

1.27 ELECTRONIC SUBMITTAL PROCEDURES

A. Summary:

1. A/E Design Submissions, Shop drawing and product data submittals shall be transmitted to the Government (PDF) format using Submittal Exchange (www.submittalexchange.com) or equal pre-approved website service designed specifically for transmitting submittals between all construction team members.
2. The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
3. The electronic submittal process is not intended for color samples, color charts, or physical material samples.

B. Procedures:

1. Create submittal log in Submittal Exchange by inserting required submittals listed in individual design submission requirements and specification sections.
2. Submittal Preparation - Contractor may use any or all of the following options:
 - a. Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor via the Submittal Exchange website.
 - b. Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor via email.
 - c. Subcontractors and Suppliers provide paper submittals to Scanning Service which electronically scans and converts to PDF format.
3. Printed Submittals: Provide two printed sets of submittals for shop drawings for structural framing in addition to electronic submittals.
4. Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product,

dimensions and coordination of information with other parts of the work.

5. Contractor shall transmit each submittal to Architect using the submittal exchange website.
6. The Government as well as design Architect/Engineer review comments will be made available on the Submittal Exchange website for downloading. Contractor will receive email notice of completed review.
7. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.
8. Submit paper copies of any reviewed submittals not submitted electronically at project closeout for record purposes.

C. Costs:

1. Contractor shall include the full cost of Submittal Exchange project subscription in their proposal. This cost is included in the Contract Amount.
2. The intent is for submittal exchange service cost to be in lieu of postage or shipping costs typically paid for paper submittals. Service cost is a net cost savings to Contractor because submittals sent electronically do not need to be shipped physically.
3. After award of contract, training shall be provided by the submittal exchange service regarding use of their website and PDF submittals. The costs of the training shall be included in the base contract amount.
4. Internet Service and Equipment Requirements:
 - a. Email address and Internet access at Contractor's main office.
 - b. Adobe Acrobat (www.adobe.com), Bluebeam PDF Revu (www.bluebeam.com), or other similar PDF review software for applying electronic stamps and comments.

D. Products:

1. A particular service may be considered if submitted prior to bid date for pre-approval. Product requirements:
 - a. Independently hosted, web-based system for automated tracking, storage, and distribution of contract submittals, Requests For Information, and other contract related documents. FTP sites, e-mail exchanges, and server-based systems hosted from inside a contractor's office will not be considered are not acceptable.
 - b. Utilize 256-bit SSL encryption and hosted at SAS70 Type II compliant data centers.
 - c. Minimum five years documented experience of use on comparable commercial construction projects. "Comparable commercial construction projects" shall be defined as documented use on a minimum of five hundred governmental, public-entity, or private sector projects each of \$1 million construction value or greater.
 - d. Minimum five years documented 99.5% website uptime.
 - e. Unlimited individual user accounts and system access for all project subcontractors, general contractor, owner staff, architect, design consultants, and sub-consultants, with no additional fees for those parties to access the system.
 - f. Separate locations for owner, architect, design consultant, and sub-consultant review comments with contractors restricted from viewing comments until final review or release by owner or primary design consultant.
 - g. Full version histories and dates of exchanges automatically tracked and available for viewing, searching, and reporting in a linear log format compatible with AIA G712.
 - h. Functionality to group submittals as required packages and apply forms and review comments to entire package simultaneously.
 - i. Functionality for integrated online PDF viewing and review, including graphical markups and stamps, for owner, architect, design consultants, sub-consultants, and general contractor without need for additional software purchase.
 - j. Automatic, configurable email notifications for each project team member for new and reviewed submittals and other items.
 - k. Automatic, configurable email reminders of past due items.
 - l. Customized, automated PDF form generation for submittals, RFIs, and other documents matching standard templates used by owner, design consultants, sub-consultants, and general contractor. Documentation and demonstration of automatic form generation

using each entity's templates must be submitted as part of any substitution request.

- m. Prior to project start, system vendor shall create submittal log with all required items from project manual or submittal register. Owner or primary design consultant shall have full control over required items list and access to edit, add, or remove items during project.
- n. System vendor shall provide minimum one-hour live web meeting training sessions to contractors, design consultants, sub-consultants, and owners staff prior to project start.
- o. System vendor shall make available minimum thirty-minute live web meeting training sessions for subcontractors at least twice weekly for the entire duration of the project.
- p. System vendor shall provide access for owner, design consultants, sub-consultants, general contractor, and subcontractors to live technical support by phone and email minimum of 7 AM to 6 PM CST on standard business days at no additional cost.
- q. Allowance for scanning and printing services provided by local third-party reprographic vendor to assist with obtaining documents electronically and online print ordering.
- r. At completion of project closeout, system vendor shall provide minimum of four archival discs that include all documents and tracking logs, or the ability to download this information from the live website in a single complete archive package.

1.28 GENERAL ORDER OF PROCEDURE:

- A. The contractor shall execute the contract in order outlined in this paragraph except as otherwise specified in specifications and/or drawings.
 - 1. Establish phase of work with COR.
 - 2. Complete survey covered in Section 01 00 00, GENERAL REQUIREMENTS.
 - 3. Submit Progress Chart.
 - 4. Submit Schedule of Costs.
 - 5. Prepare and make submittals.
 - 6. Begin work.

7. Schedule final inspection.

8. Complete work.

9. Final inspection.

10. Completion of punch list.

11. Final acceptance by VA.

B. Performance:

1. All work is to be in accordance with VA and Federal Specifications, published trade standards, National Building Codes, National Electric Codes, National Plumbing Codes, National Fire Protection Association Codes and any other specialized codes required by specifications and drawings.

C. Submittals:

1. The contractor shall submit a complete submittal schedule, for approval, of all for all materials to be used on this project within 30 calendar days after the contractor receives the notification to proceed.

D. Notification:

1. All contractors, prime and sub, will notify the project COR and/or the project CO 48 hours in advance of intent to begin work. A 24-hour notice should be given after a work stoppage.

E. Coordination:

1. Contractor to submit a detailed schedule of work to allow the VA to plan and schedule work in same and adjacent areas that is being performed by VAMC personnel.

- - - E N D - - -